CLAIMS

1) Method of setting up a dialysis treatment in a dialysis machine (1) provided with a device (6) for setting up the dialysis treatment comprising a microprocessor (11), a data input (12, 13) and a screen (13), the method comprising the steps of:

• supplying a group of functions (U(t,P); C(t,P)) of a quantity (U; C) characteristic of the dialysis treatment as a function of time (t) and of a variable parameter (P) correlated with intermediate values (U_i, C_i) of each function (U(t;P); C(t;P)) of the group;

• selecting a subset of the group of functions (U(t;P); C(t;P)) imposing boundary conditions (U_0, TWL, DT; C_0, C_f, DT; C_0, CS, DT) characteristic of a particular therapy;

• assigning values to parameter (P) and displaying the curves corresponding to the functions (U(t,P); C(t,P)) of the subset and to the respective values assigned to parameter (P); and

• selecting one of the functions ((U(t,P); C(t,P)) of the subset on the basis of the images of the curves.

2) Method according to Claim 1, further comprising the steps of:

• assigning a value to parameter (P);

• displaying the curve corresponding to the function ((U(t,P); C(t,P)) of the subset discriminated by the value assigned to parameter (P);

• confirming the value of (P) if the image of the curve complies with defined requirements;

• assigning a further value to parameter (P) if the image of the curve does not comply with defined requirements and displaying the further curve corresponding to the further function ((U(t,P); C(t,P)) of the subset discriminated by the further value assigned to parameter (P).

3) Method according to Claim 1, in which the parameter (P) is correlated with the curvature of the curves of the

respective functions ((U(t,P); C(t,P)) of the group of functions.

4) Method according to Claim 3, in which each curve is displayed with respect to a cartesian system (20; 27; 34) on the screen (13), the parameter (P) discriminating whether the curve is a straight line, whether it has curvature in one direction or in the opposite direction, and determining the extent of the curvature.

5) Method according to Claim 1, in which the boundary conditions comprise:

- at least a first and a second value (U_0, TWL; C_0, C_f; C_0, CS) correlated with the quantity (U; C) characteristic of the dialysis treatment;
- entering a third value (DT) indicating the duration of the dialysis treatment.

6) Method according to Claim 5, in which the machine comprises a blood circuit (4) for circulation of the blood fluid and an ultrafiltration pump (9) for extracting a proportion of the blood fluid and effecting a weight loss (TWL) of the patient, the ultrafiltration pump (9) having a variable delivery (Q(t)), the quantity that is characteristic of the dialysis treatment being the weight loss in unit time (U), the first value (U_0) being the hourly weight loss at the beginning of the dialysis treatment, the second value being the total quantity of the blood fluid extracted (TWL), i.e. the weight loss, equal to the integral of the function (U(t)) for the duration of dialysis.

7) Method according to Claim 5, in which the machine (1) comprises a dialysate circuit (3) for conveying a dialysate fluid that has a defined concentration of salts and an apparatus (2) for varying the concentration of salts during the dialysis treatment, the quantity being the conductivity (C) of the dialysate, which is correlated with the concentration of salts.

8) Method according to Claims 5 and 7, in which the first value is a value of the conductivity (C_0) at the beginning of the dialysis treatment, the second value is a value of the conductivity (C_f) at the end of the dialysis treatment, the second value being lower than the first value.

9) Method according to Claims 5 and 7, in which the first value is a value of the conductivity (C_0) at the beginning of the dialysis treatment, the second value being a value of the total quantity of salts (CS) that must be transferred to the patient.

10) Method according to Claim 9, in which the quantity of salts is equal to the integral of the curve of the concentration (C(t)) of the dialysate and of the function of an absorption function (FF(t)) that is characteristic of the transfer of salts between the dialysate and the blood fluid.

11) Method according to Claim 9, in which the absorption function (FF(t)) is a function of the difference between the concentration of the dialysate and of the characteristics of the blood fluid.

12) Method according to Claim 1, comprising the step of determining a first function (U(t)) of a first quantity (U) that is characteristic of the dialysis treatment among a first group of functions (U(t,P)) and a second function (C(t)) of a second quantity (C) that is characteristic of the dialysis treatment among a second group of functions (C(t,P)).

13) Method according to Claim 12, in which the first and the second functions (U(t); C(t)) are determined independently of one another.

14) Method according to Claim 13, in which each first function (U(t)) of the first group corresponds to a respective first continuous curve in the first derivative and each

function (C(t)) corresponds to a respective second continuous curve in the first derivative, the method envisaging selecting the second function (C(t)) stipulating that the second curve should have the same shape as the first curve.

15) Method according to Claim 14, in which values of the second function (C(t)) are linked to values of the first function (U(t)) by constants (M, N) determined experimentally.

16) Method according to Claim 14, in which the second function (C(t)) is selected among the functions (C(t;P)) of the second group, stipulating the same value of the parameter (P) employed for selecting the first function (U(t)) among the functions (C(t)) of the first group.